DOCUMENT RESUME

ED 416 381 CE 075 851

AUTHOR	Lee, Lung-Sheng; Hwang, Jenq-Jye
TITLE	Curriculum Design and Standard Setting for Vocational Education and Training in Taiwan, R.O.C. = Jong Hwa Min Gwo Jyr Yeh Jiaw Yuh Yeu Shiunn Liann De Keh Cherng Sheh Jih Her Biau Joen Jy Jyh Ding.
PUB DATE	1998-03-00
NOTE	21p.; Paper presented at the Australia-Taiwan Conference on Vocational Education and Training (2nd, Chungli, Taiwan, March 2-3, 1998).
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150) -- Multilingual/Bilingual Materials (171)
LANGUAGE	English, Chinese
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Community Colleges; *Curriculum Development; Educational Cooperation; *Educational Practices; Foreign Countries; *International Educational Exchange; Job Training; *National Standards; Public Education; Secondary Education; Technical Institutes; Two Year Colleges; *Vocational Education
IDENTIFIERS	Australia; *Taiwan

ABSTRACT

Three categories of vocational education and training exist in Taiwan: technological and vocational education (TVE), public training (PT), and enterprise training (ET). Together, the TVE programs provided in senior vocational schools, junior colleges, and institutes/universities of technology constitute a complete system that parallels the academic education system. PT is provided through 13 public vocational training institutes that provide approximately 90 programs and 8,600 training slots annually. The institutes are affiliated with various government agencies and supervised by three administrative bodies. The main role of TVE and PT is to develop a diverse technical and managerial work force. Taiwan's Ministry of Education standardizes and promulgates the country's TVE curricula and revises TVE curriculum standards approximately every 10 years. The standards are currently being revised, and several research and development projects to improve the TVE curriculum design process are now under way. The possibility of bilateral exchanges and cooperation between Australia and Taiwan has been explored, and the following possible forms of cooperation/exchange have been proposed: exchange of information about innovations and experience in VET curriculum design and textbook development; joint studies of VET provision; and exchanges of VET teachers/trainers and student teachers/trainers. (English and Chinese versions of the paper are included.) (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 416 381

Running head: VOCATIONAL EDUCATION AND TRAINING CURRICULUM

Curriculum Design and Standard Setting for Vocational Education and Training in Taiwan, R.O.C.

Lung-Sheng Lee* and **Jenq-Jye Hwang****

* Professor & Chair, Department of Industrial Technology Education,
National Taiwan Normal University, Taiwan, R.O.C.

** Director General, Department of Technological and Vocational Education,
Ministry of Education, Taiwan, R.O.C.

Paper presented at

The Second Australia-Taiwan Conference
on Vocational Education and Training,
Chungli, Taoyuan, Taiwan, R.O.C.,
March 2-3, 1998

CE 075 851

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL
HAS BEEN GRANTED BY

L-S Lee, J-J Hwang

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

Abstract

Vocational education and training (VET) in the Republic of China (R.O.C.) on Taiwan (henceforth called Taiwan) can be categorized into technological and vocational education (TVE), public training (PT) and enterprise training (ET). This paper introduces the curriculum design and standard setting in TVE and PT respectively, and goes on to recommend that the following possible bilateral exchanges and cooperation between Australia and Taiwan should emphasized: (1) information concerning innovations, ideas and experience in VET curriculum design, such as the facilitation and quality assurance of competency standards, development and marketing of curriculum, recognition and assessment; (2) materials concerning VET curriculum products and textbooks; (3) joint studies concerning the provision of VET programs, as well as curriculum design and student adaptability; (4) exchanges of VET teachers/trainers and students/trainees, especially in the field of language studies.

Curriculum Design and Standard Setting for Vocational Education and Training in Taiwan, R.O.C.

Vocational education and training (VET) in Taiwan can be categorized into the following three realms (see Figure 1) :

1. Technological and vocational education (TVE)
   In the school education system[1], TVE is mainly provided at the following three levels: senior vocational schools (SVS's), junior colleges (JC's) and institutes/universities of technology (IT's/UT's). This is a complete system (SVS-JC-IT/UT) , parallel to the academic education system (senior high school-university/college), which stands a good chance of reflecting the characteristics of TVE, such as reliance on cooperative and experiential methods.
2. Public training (PT)
   Affiliated to various governmental agencies and supervised by the Employment and Vocational Training Admission, the Council of Labor Affairs (EVTA, CLA), Executive Yuan, 13 public vocational training institutes provide around 90 programs and about 8,600 training slots yearly. In addition, EVTA also subsidizes local authorities and entrusts institutions (such as TVE institutes, trade unions) other than the 13 institutes to offer public training programs (EVTA, 1997).
3. Enterprise training (ET)
   A variety of enterprise training programs are offered inside or outside firms by business undertakings, industrial and commercial associations, trade unions, professional training and academic research institutions, as well as schools.

Figure 1. Three realms of VET in Taiwan.

Due to the island's meager natural resources, Taiwan's economic prosperity has relied greatly on the development and utilization of human resources. Working together, TVE, PT and ET should be designed to operated within a framework of open and flexible structures in the context of lifelong education. Within their main role of the breeding ground of a diverse technical and managerial workforce, TVE and PT have aimed to develop human resources, taking into consideration economic, social and cultural developmental needs and the

BEST COPY AVAILABLE

personal fulfillment of the individual. In order to fulfill their aims, TVE and PT programs and curricula must be developed appropriately. The purpose of this paper is to demonstrate the curriculum design and standard setting in Taiwan's TVE and PT, and suggest possible areas of exchange and cooperation regarding VET curriculum design and standard setting between Australia and Taiwan. The term curriculum is defined as all of the planned activities and experiences provided to prepare students (or trainees) for a given occupation (or profession). In addition, curriculum design is seen as synonymous to curriculum development.

TVE Curriculum Design and Standard Setting

In Taiwan, curricula for elementary schools, junior high schools, senior high schools, and SVS's as well as JC's are standardized and promulgated by the Ministry of Education (MOE). These national curriculum standards are utilized as the basis of school curriculum planning and instructional design, as guidelines for textbook compilation, and to provide the scope for entrance examinations for further study. Revised approximately every 10 years, curriculum standards for all levels of schooling are considered one of the quality assurance mechanisms implemented by educational authorities. Administered by the MOE, the generic steps employed to revise the curriculum standards for SVS's and JC's are shown in Table 1.

Funded yearly by the MOE, five TVE curriculum development centers (CDC's), affiliated with three UT's, an institute of nursing (equivalent to an IT), and a comprehensive university have been established to be, respectively, in charge of curriculum development for the following TVE subfields: (1) industry, (2) commerce, (3) home economics and agriculture, (4) medicine and nursing, and (5) marine affairs and products.

At present, SVS curriculum standards are under revision and will possibly be promulgated in 1998 , and may go into effect in the 1999 school year, beginning on August 1, 1999, or later. Current program-specified JC curriculum standards, called course tables and syllabuses, were promulgated in 1993 or 1994 and went into effect in the 1995 school year. Regarding IT/UT curricula, each IT/UT designs its own curricula according to its particular features. Graduation from an IT or a UT normally requires a minimum of 148 course credits in four-year programs and a minimum of 72 course credits in two-year programs. Since IT/UT curriculum development is fully school-based, the following presentation of trends in TVE curriculum development will be focused on SVS and JC curriculum standards.

Table 1.

Generic Steps Employed to Initiate or Revise Curriculum Standards for SVS's and IC's.

Steps	Executive body
1. draft a curriculum revision proposal;	MOE
↓	
2. organize a curriculum revision committee, normally consisting of TVE administrators, teacher educators, school staff, and curriculum specialists;	MOE
↓	
3. entrust a research and design task force, not only in charge of drafting revision principles, a curriculum standard framework, revision model, etc., but also offering consultative services;	MOE
↓	
4. group curriculum drafting task forces, which include general principles task forces, in charge of drafting instructional goals, courses, the sequence offered and teaching hours for each TVE program;	CDC's
↓	
5. draft a syllabus for each course;	CDC's
↓	
6. review and refine;	CDC's
↓	
7. promulgate and implement.	MOE

Source: Lee & Hwang, 1996.

A TVE curriculum should be data-based, dynamic, explicit in its outcomes, fully articulated, realistic, student-oriented, evaluation-conscious, and future-oriented (Finch & Crunkilton, 1993). Each of these requirements might be met provided a TVE curriculum is developed systematically. The complete TVE system in Taiwan crosses more than seven subfields (e.g., industry, commerce, agriculture) in both the upper-secondary and the tertiary levels. Both the common and unique features of curricula in TVE subfields should be used to reinforce one another and students need to be able to progress in an orderly manner, experiencing neither gaps nor unnecessary duplication among TVE levels. In order to assure that TVE curricula can effectively assist students to enter and succeed in the world of work and a society of lifelong learning, the MOE recently decided to conduct a series of research and development (R&D) projects, under the title of "The Search for More Coherent and

BEST COPY AVAILABLE

Relevant TVE Curricula," to improve curriculum design processes as well as program adjustments. The following main outcomes are expected from these R&D projects: (1) industry-based skill standard exemplars and its developmental models, (2) the outlook of a high-performance workforce for the 21st century, (3) TVE school-based curriculum development (SBCD) models, (4) needs assessment models of emerging TVE programs and suggestions for adjusting existing TVE programs, and (5) a review and strategic plan for TVE CDC's. All these outcomes will lead to the creation of mechanism to ensure TVE curricula become more coherent and relevant.

PT Curriculum Design and Standard Setting

Taiwan requires enterprises related to public safety and health to hire a certain proportion of certificate skilled worker and considers skill certificates as equivalent to TVE school diplomas. According to the Vocational Training Act, there are three grades of skill certificates, namely A, B, and C, which are issued to persons passing skills tests at Grades A, B, and C respectively. PT in Taiwan is based upon the training process shown in Figure 3. The percentage of trainees succeeding in skills testing is a key indicator to evaluate the performance of PT. Thus, training criteria commonly align with skills testing criteria. To develop and approve training criteria and training materials for vocational training programs as well as to supervise and administer skills testing and issue skill certificates are a part of EVTA's functions. PT Trainers play a key role in developing skills testing criteria, training criteria, and training materials.

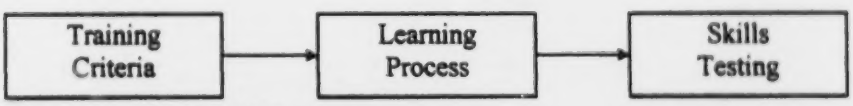


Figure 3. A simplified PT process.

The Research and Development Institute of Vocational Training (RDIVT) is a non-profit agency founded by the National Federation of Industries. EVTA routinely entrusts RDIVT to conduct R&D on a variety of PT training criteria, training materials and teaching aids, as well as to promote their applications. Since 1998, a series of PT endeavors related to curriculum, such as program integration, competency analysis, instructional material development, etc., have been conducted by RDIVT. The working agenda for these endeavors is shown in Figure 4. The DACUM (Developing A CUrriculM) method is employed in the process of competency analysis, as shown in Figure 4. Hopefully, the completion of these endeavors will result in more relevant training curricula as well as programs.

BEST COPY AVAILABLE

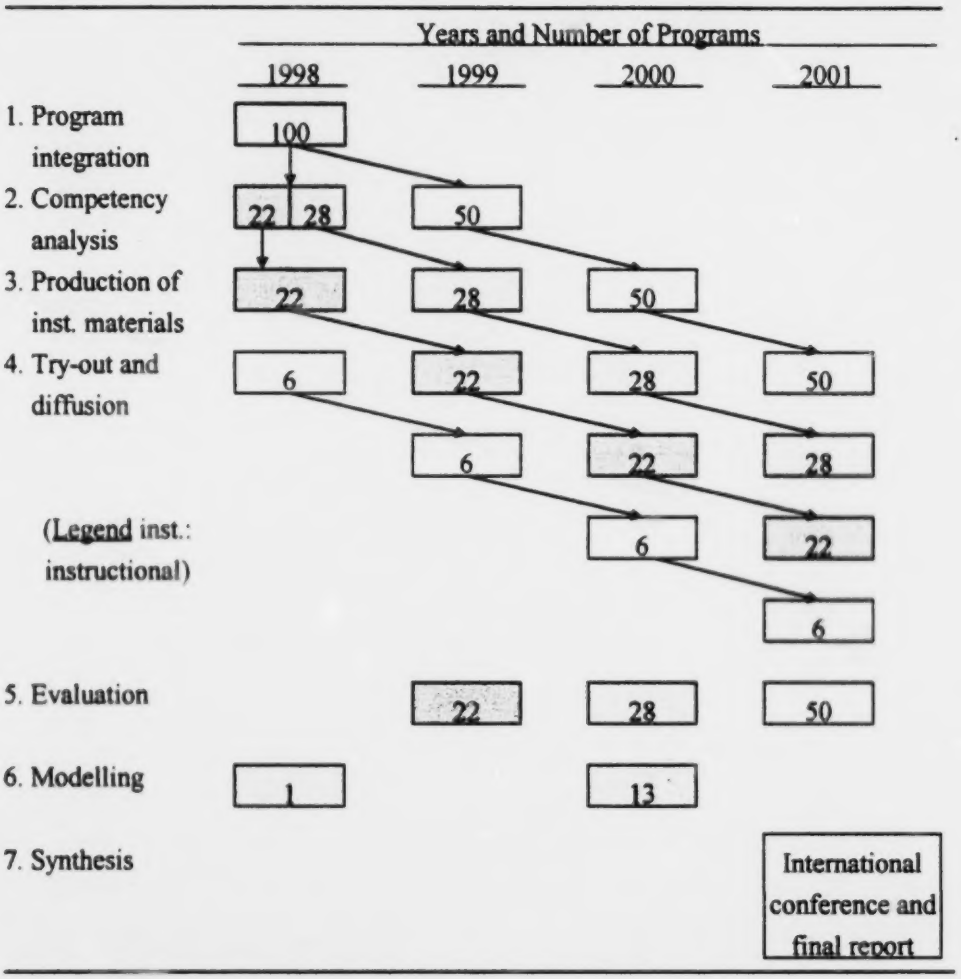


Figure 4. RDIVT's Curricular Working Agenda from 1998 to 2001.
Source: Provided by the Research and Development Institute of Vocational Training, Republic of China.

Possible Exchanges and Cooperation Regarding VET Curriculum Design and Standard Setting between Australia and Taiwan

As stated in Unesco's Convention on Technical and Vocational Education (1989), the countries cherishing VET should make the following efforts to facilitate international VET exchanges and cooperation:

1. To encourage the collection and dissemination of information concerning innovations, ideas and experience in VET;
2. To participate actively in international exchanges dealing with study and teacher training programs, methods, equipment standards and textbooks in the field of

BEST COPY AVAILABLE

VET;

3. To encourage the use in VET of international technical standards applied in industry, commerce and other sectors of the economy;
4. To promote approaches to achieving the recognition of equivalencies of qualifications acquired through VET.
5. To encourage international exchanges of teachers, administrators and other specialists in VET.
6. To give students from other countries, particularly from developing countries, the opportunity to receive VET in their institutions, with a particular view to facilitating the study, acquisition, adaptation, transfer and application of technology;
7. To promote cooperation in VET between all countries, but in particular between industrialized and developing countries, in order to encourage the development of the technologies of these countries;
8. To mobilize resources for strengthening international cooperation in the field of VET.

Accordingly, in addition to recognizing the need for all the above efforts to be made by both Australia and Taiwan, at least the following possible exchanges and cooperation regarding VET curriculum design and standard setting between Australia and Taiwan should be emphasized:

1. Information concerning innovations, ideas and experience in VET curriculum design, such as the facilitation and quality assurance of competency standards, development and marketing of curriculum, recognition and assessment (Moran, 1997).
2. Materials concerning VET curriculum products and textbooks.
3. Joint studies concerning the provision of VET programs, as well as curriculum design and student adaptability.
4. Exchanges of VET teachers/trainers and students/trainees, especially in the field of language studies.

Both Australia and Taiwan are a part of the Pacific Rim and are searching for excellence in VET. Considering that curriculum is the core of VET, ongoing facilitation of the above exchanges and cooperation in VET curriculum design and standard setting is necessary and will undoubtedly yield fruitful results.

BEST COPY AVAILABLE

References

Employment and Vocational Training Administration (EVTA). (1997). Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan Republic of China. Taipei: Author.

Finch, C. R., & Crunkilton, J. R. (1993). Curriculum development in vocational and technical education: Planning, content, and implementation (4th ed.). Boston, MA: Allyn and Bacon.

Lee, L. S., & Hwang, J. J. (1996). Curriculum standards of technological and vocational education in Taiwan, R.O.C. Paper presented at the Taiwan-Australia Conference on Vocational Education and Training, Melbourne, Australia, May 27-29. (ERIC Document Reproduction Service No. ED 393 988)

Ministry of Education. (1997, May). A brief introduction to the technological and vocational education of the Republic of China. Taipei, Taiwan: Author, Department of Technological and Vocational Education.

Moran, T. (1997, June). Current developments in vocational education and training in Australia. Australian National Training Authority (ANTA). Available http://www.anta.gov.au.

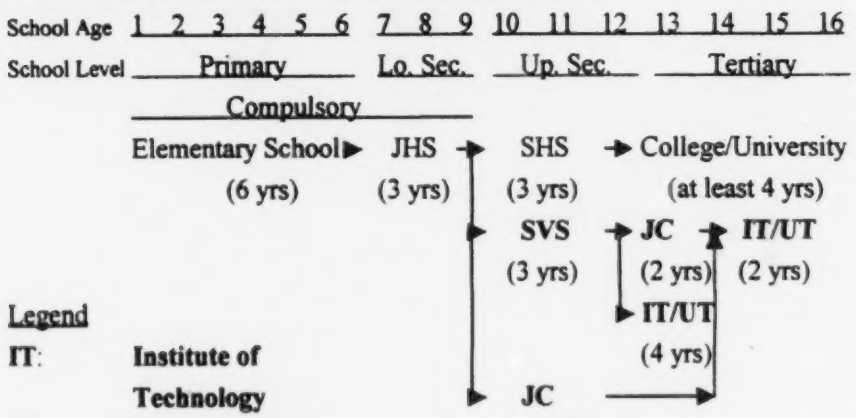
Research and Development Institute of Vocational Training (RTIVT), Republic of China. (1998). The Research and Development Institute of Vocational Training (RTIVT), Republic of China. Taipei: Author.

Unesco. (1989). Convention on technical and vocational education. Available http://www.unevoc.de/convent/convent.htm.

BEST COPY AVAILABLE

Footnotes

[1]The school system of Taiwan is illustrated as follows:


School Age 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
School Level Primary Lo. Sec. Up. Sec. Tertiary
Compulsory
Elementary School (6 yrs)
JHS (3 yrs)
SHS (3 yrs)
College/University (at least 4 yrs)
SVS (3 yrs)
JC (2 yrs)
IT/UT (2 yrs)
IT/UT (4 yrs)
JC (5 yrs)

Legend

IT:	**Institute of Technology**
JC:	**Junior College**
JHS:	Junior High School
Lo. Sec.:	Lower Secondary
SHS:	Senior High School
SVS:	**Senior Vocational School**
Up. Sec.:	Upper Secondary
UT:	**University of Technology**
yrs:	years
→:	flow

Note

TVE institutes are typed in **boldface**.

中華民國職業教育與訓練的課程設計和標準之制訂

李隆盛[1]　黃政傑[2]
[1]國立台灣師範大學工業科技教育系
教授、系主任，兼教育部顧問
[2]教育部技術及職業教育司司長

發表於
第二屆中澳技職教育及訓練會議
桃園縣中壢市
1998年3月2-3日

摘　　要

中華民國在台灣（以下簡稱台灣）的職業教育與訓練大分為技術及職業教育（以下簡稱技職教育）、公共訓練和企業訓練。本文先介紹技職教育和公共訓練的課程設計和標準之制訂，再建議中澳雙方可著重下列有關的課程交流和合作：(1)有關職業教育與訓練課程設計之革新、構想和經驗方面的資訊，如能力標準的推動與品保、課程的發展與推廣、認證與評估；(2)有關職業教育與訓練的材料，如課程產品和教科用書；(3)有關職業教育與訓練科系或班次的開設、課程設計、和學生調適能力的合作研究；(4)職業教育與訓練師資和學生的交換（可先從語文領域著手）。

中華民國職業教育與訓練的
課程設計和標準之制訂

台灣的職業教育與訓練大分為下列三環節（見圖 1）：

1. 技職教育

   在教育系統（註 1），技職教育主要分成下列三個層級：高職、專校和技術學院或科技大學。這是一個和學術教育系統（高中－大學校院）平行的完整學制（高職－專校－技術學院或科技大學），其特點是有發揮技職教育著重合作和體驗方法的大好機會。

2. 公共訓練

   有 13 所公共職業訓練機構隸屬於不同政府部門，但受行政院勞工委員會職業訓練局督導。這些機構每年提供約 90 職種、8,600 訓練人次。此外，職業訓練局也補助地方政府和委託公共職業訓練機構以外的機構（如技職校院、行業工會）提供公共訓練班次。

3. 企業訓練

   各種企業訓練班次被提供在公司行號內部或外部，辦理主體有企業本身、工商協會、行業工會、專業訓練和學術研究機構和學校。

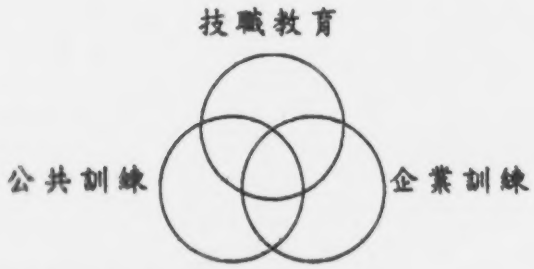


圖 1. 台灣職業教育與訓練的三環節

台灣天然資源匱乏，經濟發展倚重人力資源的發展與運用。技職教育、公共訓練和企業訓練該通力合作，在終身教育開放且彈性的的脈絡與架構中運作。其中，技職教育和公共訓練由於是培訓各種技術和管理人才的主要基地，一直在因應經濟、社會和文化發展的需要，和個人理想的實現，致力於發展人力資源。為達此目的，技職教育和公共訓練類科班次與課程必須適切發展。本文目的即在

介紹技職教育和公共訓練的課程設計和標準之制訂，並就中澳兩國職業教育與訓練課程設計與標準之制定方面的可能交流與合作，做出建議。文中，課程被界定為是培養學生或學員某一職業（或專業）所需知能的各種有計畫活動和經驗。此外，課程設計和課程發展被視為同義詞。

壹、技職教育課程設計與標準之制訂

台灣中小學及專校的課程標準係由教育部訂頒。這種國定課程標準是學校課程規畫和教學設計的基準、教科書編撰的指引和升學考試的範圍。各級學校的課程標準每 10 年左右修訂一次，是教育當局實施品保的機制之一。在教育部的行政管理下，高職和專校課程標準的修訂程序大致如表 1 所示。

表 1. 高職和專校課程標準的修訂程序

步　　驟	執行體
1. 擬訂課程標準修訂計畫。	教育部
↓	
2. 組成課程標準修訂委員會—成員通常含技職教育行政人員、學科專家(師資培育人員、學校教師)、和課程專家。	教育部
↓	
3. 委託研究與設計小組—負責起草修訂原則、課程標準基本架構、和修訂模式等，以及提供諮詢服務。	教育部
↓	
4. 組成總綱及各類科修訂小組—負責起草類科教學目標、科目、順序和時間等。	課程發展中心
↓	
5. 擬訂各科目教學綱要。	課程發展中心
↓	
6. 審查與修正。	課程發展中心
↓	
7. 公布與實施。	教育部

資料來源：Lee & Hwang, 1996.

在教育部逐年的經費資助下，有五個技職教育課程發展中心附設在三所科技大學、一所護理學院（相當於技術學院）和一所綜合大學。這五個中心分別負責下列類科的課程發展：(1)工業；(2)商業；(3)家政和農業；(4)醫藥和護理；(5)海事和水產。

目前，高職課程標準正在修訂當中，可能在 1998 年公布，在 1999 學年度或之後實施。目前專校各科別的課程標準稱「科目表暨教材大綱」，是在 1993 至 1994 年公布，自 1995 學年度實施的。在技術學院或科技大學的課程方面，每一所技術學院或科技大學都可根據特性設計自己的課程。四年制技術學院或科技大學通常要求至少 148 個畢業學分，二年制則要求至少 72 個畢業學分。由於技術學院或科技大學的課程發展已經是學校本位了，所以本文所述技職教育的課程發展，偏重在高職和專校的課程標準的制訂。

技職教育課程應該是資料本位、動態發展、結果明確、銜接一貫、講求務實、學生取向、評鑑意識和未來導向(Finch & Crunkilton, 1993)。技職教育課程必須系統化的發展才能具備這些屬性。由於台灣的技職教育橫跨七個以上類科（如：工、商、農）和跨越高級中等及高等教育兩階段。各類科課程的通性和特性應發揮類科互補的功能，而學生在升級進修時也應無課程銜接不上或過度重疊的現象。為了確保技職教育課程能有效協助學生進入工作世界和終身學習社會，並發展成功，教育部最近決定進行一系列名為「技職校院一貫課程」的研究與發展專案，以改善課程發展程序和科系開設。透過這些專案，希望有下列主要的成果：(1)產業本位的能力標準範例及其發展模式；(2)廿一世紀所需優質人力的展望；(3)技職校院學校本位課程發展模式；(4)新科系開設的需求評估模式和對現存科系調整的建議，以及(5)技職教育課程發展中心的檢討與策略性計畫。所有的成果都朝向建立一個能促使技職教育課程更連貫和適切的機制。

貳、公共訓練的課程設計與標準之制訂

台灣立法要求和公共安全、衛生有關的事業單位要雇用一定比例的有證照技術人員，並將技術士證視同技職校院的畢業證書。根據職業訓練法，共有甲、乙、丙三級技

術士證，分別授予甲、乙、丙三級技能檢定及格者。台灣的公共訓練大體根據圖 3 所示的訓練程序進行。學員通過技能檢定的百分比常被作為公共訓練成效的主要評鑑指標，所以訓練規範常對準技能檢定規範。發展和審定訓練規範和訓練教材，以及督導、管理技能檢定，和發給技術士證是職業訓練局的一部份工作。公共訓練機構的訓練師在技能檢定規範、訓練規範、和訓練教材的發展過程中，扮演很重要的角色。

圖 3. 公共訓練的簡要程序

職業訓練研究發展中心是全國總工會設立的非營利性機構，職業訓練局例行性地委託該中心進行各種訓練規範、訓練教材和教助的研發與推廣。該中心自 1998 年起進行一系列有關職業訓練課程的努力，如職種整合、能力分析、教材編製等。其工作流程如圖 4 所示，圖 4 中的能力分析係採用蝶勘法(DACUM—Developing A CUrriculM)。希望這些努力能產出更適切的訓練課程。

BEST COPY AVAILABLE

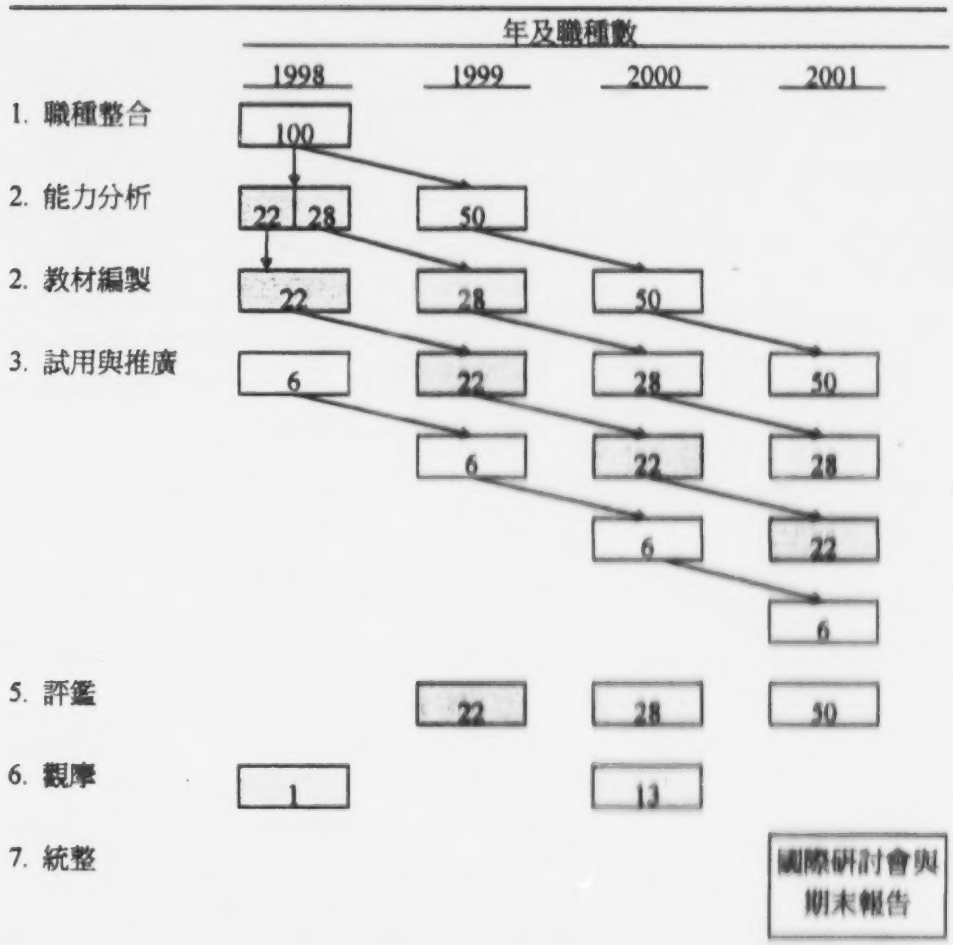


圖 4. 職業訓練研究發展中心 1998-2001 年的課程工作流程

參、中澳可能進行的職業教育與訓練課程交流與合作

參見聯合國教科文組織(Unesco, 1989)技職教育大會的建議，重視職業教育與訓練的國家應努力促進下列職業教育與訓練的交流與合作：

1. 鼓勵職業教育與訓練創新、構想和經驗等資訊的蒐集和傳播；
2. 積極參與有關職業教育與訓練研究、師資培訓、方法、設備標準和教科書的國際交流；
3. 鼓勵在職教育與訓練中，使用運用在工商和其他經濟部門的國際技術標準；
4. 促進透過職業教育與訓練取得之資格的相互承認；

BEST COPY AVAILABLE

5. 鼓勵職業教育與訓練師資、行政人員和其他專家的國際交流；
6. 提供他國（特別是開發中國家）學生到職業教育與訓練機構受教的機會，尤其是著重科技的研習、獲取、調適、轉移和應用；
7. 促進所有國家（特別是工業化國家和開發中國家）的合作，以鼓勵合作國家的科技發展；
8. 活用資源以加強國際職業教育與訓練的合作。

因此，中澳兩國除了努力做好上述各項之外，在職業教育與訓練課程的交流與合作方面，至少可著重下列四項：

1. 職業教育與訓練課程設計創新、構想和經驗方面的資訊，如能力標準的推動與品保、課程的發展與推廣、認證與評估(Moran, 1997)。
2. 有關職業教育與訓練的材料，如課程產品和教科用書。
3. 有關職業教育與訓練科系或班次開設、課程設計和學生調適能力的合作研究。
4. 有關職業教育與訓練師資和學生的交換（特別是可從語文領域著手）。

中、澳都在太平洋邊緣，也都致力於追求職業教育與訓練的卓越化。兩國持續推進職業教育與訓練課程設計和標準之制訂的交流與合作，是必要且必將成果豐碩的。

BEST COPY AVAILABLE

參考資料

Employment and Vocational Training Administration (EVTA). (1997). Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan Republic of China. Taipei: Author.

Finch, C. R., & Crunkilton, J. R. (1993). Curriculum development in vocational and technical education: Planning, content, and implementation (4th ed.). Boston, MA: Allyn and Bacon.

Lee, L. S., & Hwang, J. J. (1996). Curriculum standards of technological and vocational education in Taiwan, R.O.C. Paper presented at the Taiwan-Australia Conference on Vocational Education and Training, Melbourne, Australia, May 27-29. (ERIC Document Reproduction Service No. ED 393 988)

Ministry of Education. (1997, May). A brief introduction to the technological and vocational education of the Republic of China. Taipei, Taiwan: Author, Department of Technological and Vocational Education.

Moran, T. (1997, June). Current developments in vocational education and training in Australia. Australian National Training Authority (ANTA). Available http://www.anta.gov.au.

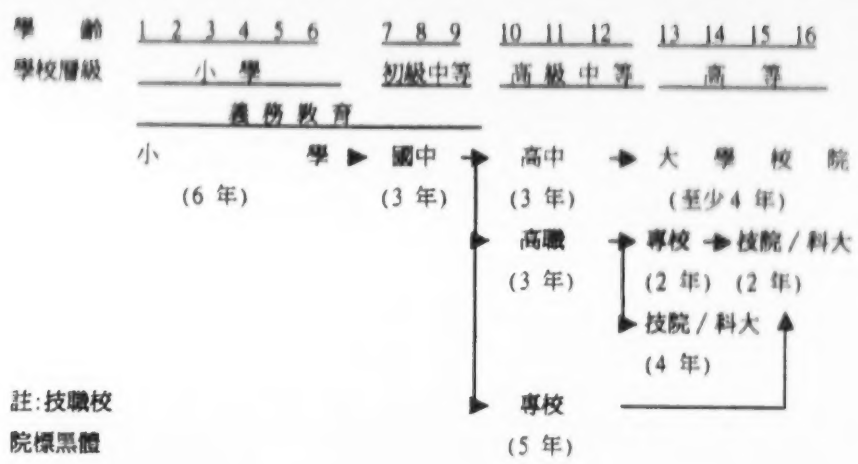
Research and Development Institute of Vocational Training (RTIVT), Republic of China. (1998). The Research and Development Institute of Vocational Training (RTIVT), Republic of China. Taipei: Author.

Unesco. (1989). Convention on technical and vocational education. Available http://www.unevoc.de/convent/convent.htm.

BEST COPY AVAILABLE

附　註

1. 台灣的學校系統如下：



註:技職校院標黑體

BEST COPY AVAILABLE